

# Transition Edge Sensors: From First Principles to Applications in Particle Detection and Quantum Technologies

*Friday 24 January 2025 10:00 (45 minutes)*

Transition Edge Sensors (TES) are superconducting devices that utilize the sharp transition between superconducting and normal-conducting states to achieve exceptional energy sensitivity. This lecture will explore the physics underlying TES operation, their design principles, and key applications in particle detection and emerging quantum technologies. The session aims to provide participants with a foundational understanding of TES and their potential to bridge traditional and quantum technologies.

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